

American Society for Testing Materials BULLETIN

ISSUED



BI MONTHLY

A Society of Service

I COVET for this Society greater activity in all of the fields of endeavor that mean so much to our present-day civilization. The law of the universe is Service; that which is without Service perishes . . . I am hopeful that this Society . . . can still be more useful as the years go by. For the value of a man or an organization is measured by the Service it renders to Society. The A.S.T.M. is a Service Society.

"The A.S.T.M. is abreast of the times. You can be proud of your membership in this Society. Let us be alert and aggressive always. The new developments of today may be the standards of tomorrow . . . Let us standardize materials and processes but be very careful always not to standardize our minds."

A Message from President Clements

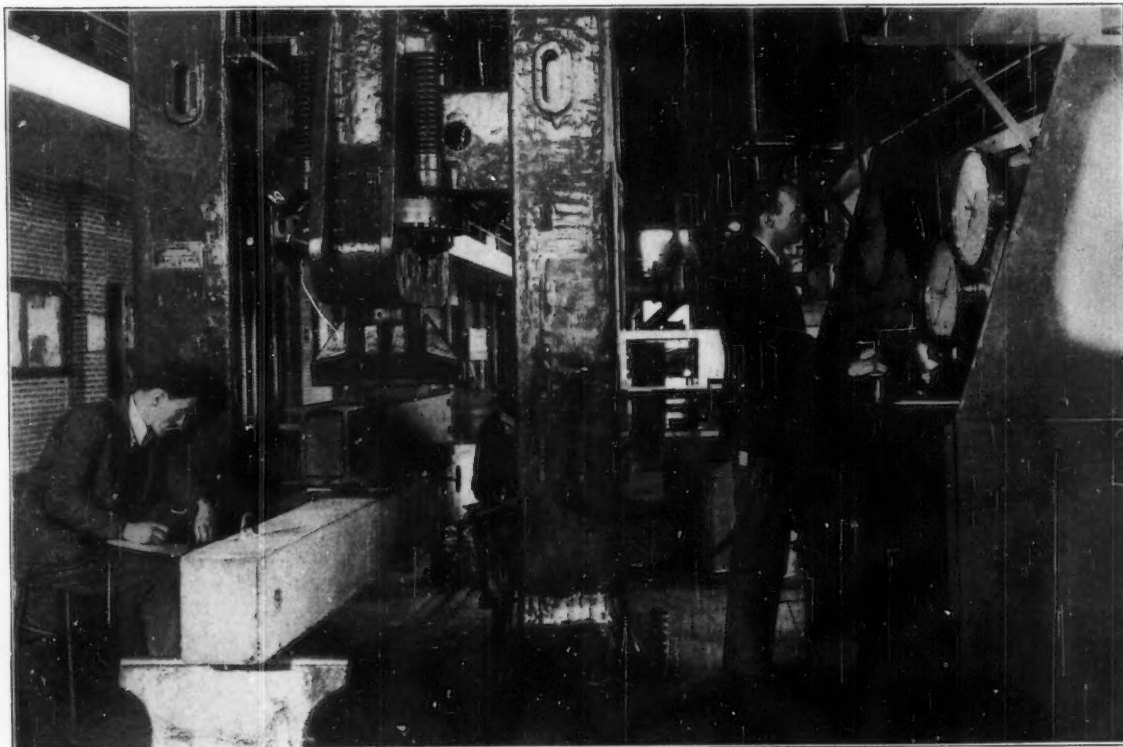
July, 1931

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American Society for Testing Materials



BULLETIN

ENGINEERS' CLUB BUILDING

1315 SPRUCE STREET

PHILADELPHIA, PA.

NUMBER 51

JULY 31, 1931

Thirty-fourth Annual Meeting Has Largest Attendance

IT is doubtful if even Horace Greely would have given his famous advice "Go West, young man, go West" if he could have foreseen that the young man in question would encounter such heat as our members and visitors did in Chicago during the week of our recent annual meeting. But despite the temperature, which hovered well above ninety throughout the five days, and the humidity, which was considerably above normal, the meeting had the largest attendance of any yet held and was probably the most outstanding from many angles. The total registration was 1451 as compared to 1092 at Atlantic City last year, which was the largest meeting up to that time. It is interesting to note that of this registration 465 came from Chicago proper; 135 of these were members. Of the total registration, 844 were members.

One of the reasons for the great interest shown in the annual meeting was undoubtedly the fact that it attracted several hundred visitors who could not have attended the meeting if it were held elsewhere, and it is quite evident that an annual meeting will attract great attention when held in an industrial center such as Chicago. The Exhibit of Testing Apparatus and Machines, which is more fully described on page 5 of this BULLETIN, attracted a considerable number of visitors. Probably the chief cause for the great interest shown was the very strong technical program, including as it did such outstanding features as the Symposium on Effect of Temperature on the Properties of Metals, Symposiums on Malleable Iron Castings, on Abrasion Testing of Rubber and on the Weathering Characteristics of

Masonry Materials. Despite the great number of items on the program, including 48 committee reports and 84 papers, interest was sustained throughout.

The Symposium on Effect of Temperature on the Properties of Metals, comprising two sessions on Tuesday, was arranged by the Joint A.S.M.E.-A.S.T.M. High Temperature Committee. H. W. Gillett, Director, Battelle Memorial Institute, and a member of the committee, should receive a large measure of the credit for the success of the sessions and his

New Officers



PRESIDENT F. O. CLEMENTS



VICE-PRESIDENT S. T. WAGNER

unsparing efforts in assembling the papers and in eliciting the valuable discussion. A feature of the two sessions was the innovation whereby no paper was read by an author, but the 11 papers in the afternoon session, which involved the engineering trends and requirements of metals for high and low temperatures, and the 17 papers in the evening session, which dealt with the properties of available metals for high and low temperature service, were abstracted by L. W. Spring, Chief Chemist, Crane Co. and H. J. French, Research Metallurgist, International Nickel Co.,

respectively. By abstracting the papers a great deal more time than is usually available was devoted to discussion. From the written discussion presented and the fact that even this had to be read in abstract, it can be seen that the high-temperature question is one of outstanding and continuing significance.

More than 500 were in attendance at each of the sessions. Mr. W. L. Abbott, Past-President of the A.S.M.E., opened the Symposium, with President K. G. Mackenzie and A. D. Bailey, member A.S.M.E. and Superintendent of generating

stations, Commonwealth-Edison Co., presiding. At the evening session Mr. F. M. Becket, Vice-President, Electro Metallurgical Co. was co-chairman with President Mackenzie.

The joint session of the Western Society of Engineers and the A.S.T.M., held on Thursday evening, was a further feature of the meeting. Devoted to a discussion of *Economic Significance of Specifications for Materials*, it sounded the keynote of the annual meeting—the importance to industry of specifications for, and information relating to, materials. It remains for industry to take advantage of the work that has been done so far and to carry this work still further. Dr. Zay Jeffries acted as chairman of the meeting. F. D. Chase, President, Western Society of Engineers, introduced the discussion with a tribute to the work done by the engineering societies in improving and standardizing specifications. The importance of careful specification writing for steel and concrete were given by four speakers, two involving the production and consuming viewpoint of each, respectively, and one speaker gave the viewpoint of a large purchaser of engineering and special materials. It was brought out that one steel company has on file more than 10,000 specifications to which it must manufacture its products. Here is a case where simplification and economic saving are clearly related. It was emphasized that while such societies as the A.S.T.M. and others have done very commendable work in the specification field, there is a great deal more to be done.

The *Symposium on Malleable Iron Castings* was held on Friday afternoon, as a joint session with the American Foundrymen's Association. Mr. N. K. B. Patch, President of the A.F.A., opened this symposium with a brief address emphasizing the value of cooperation between technical societies. The purpose of the symposium was to assemble the latest information on malleable iron castings both by means of preprinted data and through discussion. As the first of a series of symposiums on the physical properties of castings, arranged with the cooperation of the American Foundrymen's Association, it augured well for the success of future symposiums on gray-iron, steel and non-ferrous castings.

The action of weathering agents on masonry materials and the large financial losses resulting therefrom were emphasized at the *Symposium on the Weathering Characteristics of Masonry Materials* held on Thursday morning. The tests available in evaluating weather resistance and methods of prevention received a great deal of attention. Several examples of buildings and structures upon which thousands of dollars must be spent for repairs were noted. The weathering properties of concrete, structural clay products and various building stones were discussed and elicited a good deal of interesting discussion.

A *Symposium on Abrasion Testing of Rubber* was held Tuesday evening, June 23. The subject of abrasion has, of course, for a long time been an important one in many of the applications of rubber. Five formal papers were presented, involving studies of tear-resistance, abrasion tests and various methods of making these tests, and the comparative results.

The reports and papers in several other fields were of outstanding importance. The sessions involving paving and waterproofing materials, paints and petroleum products, corrosion and fatigue of metals and cement and concrete were most interesting and a good attendance was noted at each of these sessions.

In all, sixteen sessions were held, including six pairs of concurrent ones, which were instituted as usual due to the number of items to be presented.

A.S.T.M. Dinner

An informal dinner on Wednesday evening followed by the annual dance and smoker offered a welcome respite from the concentrated activities of the three preceding days. Past-President H. F. Moore acted as Toastmaster.

Following the dinner, an address of welcome was given by Colonel R. I. Randolph, President of the Chicago Association of Commerce and a noted engineer. The fifth award of the Charles B. Dudley Medal was made to Dr. A. H. Pfund, Professor of Physics, Johns Hopkins University, who was the author of the paper presented at the 1930 annual meeting on "Hiding Power Measurements in Theory and Application." H. W. Gillett, member of the Committee on Award, presented Doctor Pfund to the President and Mr. Mackenzie in a brief but fitting speech awarded the medal. Doctor Pfund, in acknowledging the award, called attention to the distinction that is sometimes made between pure and applied research, bringing out the fact that neither can stand alone but must be coordinated.

Mr. Axel Christiansen, a professional entertainer, provided a surprise entertainment feature by posing as Dr. Anton Carlson, an "eminent" Swedish metallurgist, and gave an amusing speech.

Presidential Address

The President's address followed the award of the Dudley Medal. President Mackenzie reviewed the progress of the Society in recent years and called attention to the work that lay ahead, much of it in the development of research projects. He indicated what progress had been made in membership, fields covered by our standing committees, the volume of committee reports and the number of pages of our technical papers, concluding that "We must first of all extend the scope of our activities. We must create new standing committees to cover those materials of engineering on which we are not now working. We must shortly give some secretarial assistance to at least our larger standing committees. . . . We must extend our regional meetings. All of our members cannot attend our annual meetings. These regional meetings provide the desirable contacts of the annual meeting even though on a smaller scale. We must publish the papers presented at our regional meetings. . . . We are confronted with a question of semi-annual meetings, with a considerable increase in our publications."

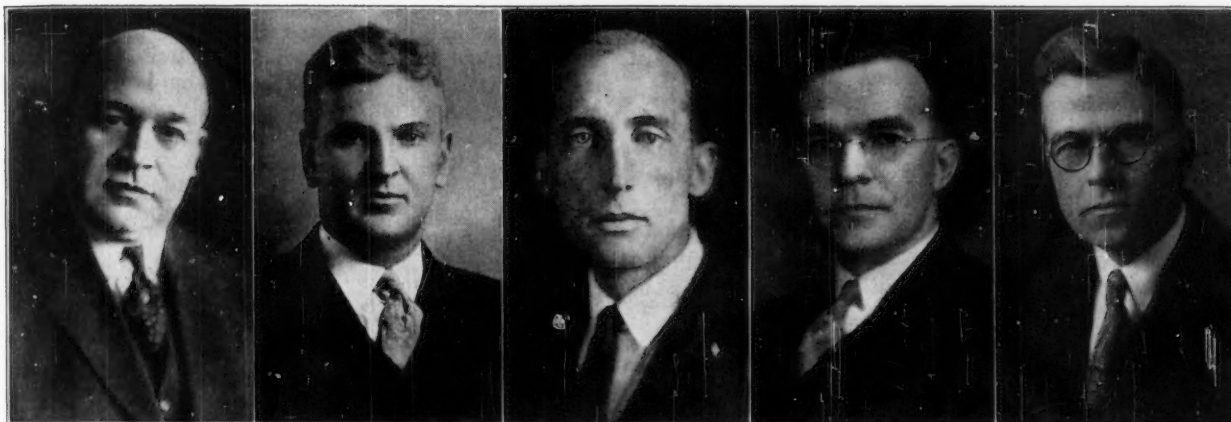
Election of Officers

The report of the tellers appointed to canvass the ballot on election of officers was presented by T. R. Lawson, following the Presidential Address. This canvass showed that 1075 legal ballots had been cast and the officers were declared unanimously elected. The newly-elected President, F. O. Clements, Technical Director, General Motors Research Laboratories, upon being presented to the gathering expressed deep appreciation of the honor of his election to the presidency. He outlined some of his aspirations for the coming year, as given in his message to the members appearing elsewhere in this BULLETIN.

The newly-elected Vice-President, S. T. Wagner, Consulting Engineer, Reading Co., thanked the members for the great honor bestowed upon him and stated that he was impressed by the responsibilities of his office and would do his utmost to forward the work of the Society and to carry out the tasks assigned to him.

(Continued on page 4)

New Members of Executive Committee



G. C. D. LENTH

K. B. COOK

J. B. JOHNSON

ARTHUR W. CARPENTER

O. L. MOORE

New Officers

The recent election of officers, as announced at the annual meeting, resulted in the unanimous election of Mr. F. O. Clements as President (1931-1932), Mr. Samuel T. Wagner as Vice-President (1931-1933) and the following as members of the Executive Committee (1931-1933): Messrs. Arthur W. Carpenter, K. B. Cook, J. B. Johnson, G. C. D. Lenth and O. L. Moore.

President

F. O. Clements, the new President, is Technical Director, Research Laboratories, General Motors Corp., Detroit. He was graduated from Otterbein College, Ohio, Class of 1896. He received his M.A. Degree there in 1898, and was honored by a Doctor of Science Degree in 1930. He earned the Master of Science Degree from Ohio State University in 1899. He was Assistant Chemist, Pennsylvania Railroad, 1899-1903; Principal Assistant Chemist, Union Pacific Railroad, 1903-1905; Chief Chemist and Engineer of Tests, National Cash Register Co., 1905-1917; Director of Research, Dayton Metal Products Co., 1917-1920; and Technical Director, General Motors Research Laboratories, 1920 to date.

Vice-President

Samuel T. Wagner, the newly-elected Vice-President, is Consulting Engineer, Reading Company, Philadelphia. He graduated from the University of Pennsylvania in 1881, and in 1884 received the C.E. Degree. From 1881 to 1893 he was successively draughtsman, inspector, assistant to master mechanic and superintendent of shops, Phoenix Iron Co. From 1894 to 1900 he was assistant engineer in charge of grade crossing elimination, City of Philadelphia, and 1900-1902 in charge of water supply filtration. From 1902-1915 Mr. Wagner served as assistant engineer with the Philadelphia and Reading Railway Co. and the Reading Company, and was Chief Engineer from 1915 to 1927 for the same company. Since 1927 he has been consulting engineer for the Reading Company.

Members of Executive Committee

Arthur W. Carpenter, Manager, Testing Laboratories, B. F. Goodrich Co., Akron, Ohio, received his B.S. Degree in Chemical Engineering from the Massachusetts Institute of Technology in 1913 and the Master of Science Degree in 1914. From 1914 to 1915 he was City Chemist, Alliance,

Ohio, and chemist of Akron Municipal Water Purification Plant from 1915-1918. From 1920-1921 he was with Goodyear Tire Rubber Co.; 1922, Superintendent, Holtite Manufacturing Co., Baltimore. From 1923-1926 he was Development Compounder, Goodyear Tire and Rubber Co. and held the same position with B. F. Goodrich Co. in 1927. From 1928 to date, Manager of Testing Laboratories, B. F. Goodrich Co.

K. B. Cook, Technical Manager, Manville Jenckes Co., Pawtucket, R. I., was graduated from Lowell Textile Institute in 1913. From then until 1916 he was employed as designer and assistant superintendent of the American Mills Co., Waterbury, Conn. In 1917 he organized and was made manager of the textile section of the U. S. Rubber Co. During 1927 he was Technical Superintendent, Winnsboro Cotton Mills, of the U. S. Rubber Co. From 1928 until the present time, Technical Manager, Manville Jenckes Co. of Pawtucket, R. I.

J. B. Johnson, Chief, Material Branch, Materiel Division, U. S. Army Air Corps, Wright Field, Dayton, was graduated from Cornell University in 1912, receiving the M.E. Degree. From 1912-1916 he was with the New York Central Railroad as special apprentice. Since 1916 he has been engaged in aeronautical work, from 1922 to date with the U. S. Army Air Corps. He has been active in development and testing work in the aircraft field.

G. C. D. Lenth, Consulting Engineer, Chicago, received his technical training at the Massachusetts Institute of Technology. Following his graduation and until 1905 he was with the Chicago and Northwestern Railway. In 1905 he was with the Board of Local Improvements, City of Chicago, and was successively Engineer of Bridge Repairs, Division Engineer in Charge of Sewer Construction and Engineer in Charge. From 1911 to 1921 he was Assistant Engineer of Sewers, Chicago. In 1921 he became Secretary and Consulting Engineer, Clay Products Association, and in addition is engaged in private consulting work.

O. L. Moore, Engineer of Tests, Universal Atlas Cement Co., Chicago, is a graduate of Carnegie Institute of Technology, Class of 1914, with the C.E. Degree. In 1914 he entered the employ of the Universal Portland Cement Co. Mr. Moore was transferred to the Inspection Department, Chicago office, in 1917 and served in various capacities in this department until 1926 when he became Engineer of Tests, his present position.

Thirty-fourth Annual Meeting

(Continued from page 2)

Edgar Marburg Lecture

The Sixth Edgar Marburg Lecture was held on Wednesday afternoon. The lecturer, Dr. Ing. A. Nadai, Research Engineer, Westinghouse Electric and Manufacturing Co., spoke on "The Phenomenon of Slip in Plastic Materials." He treated of this subject in a masterly way, illustrating his address by interesting photographs and diagrams. In the course of his address he pointed out the mathematical relation between the angle of repose of sand and the stress distribution in a plastic body when flow begins.

Action on Proposed Standards

Reports were presented of 41 standing committees of the Society and 7 research and sectional committees, outlining their activities during the year and the majority of which contained recommendations on new and existing standards. As a result of the action of the Society on the recommendations contained in these committee reports, 25 new tentative specifications and methods of tests were accepted for publication as tentative; revisions of 25 tentative standards and tentative revisions of 24 standards were also approved. Also, as mentioned elsewhere in this BULLETIN, the revision of 14 existing standards and the advancement to standard of 18 tentative standards was approved for reference to letter ballot of the Society for adoption. As a result of this intensive standardization work, the Society now has 443 standards and 169 tentative standards, making a total of 612 standards. The magnitude of this work may be appreciated when compared with the 287 standards in existence ten years ago.

Entertainment Features

The Local Committee on Arrangements, headed by H. H. Morgan, provided an interesting and enjoyable entertainment program. A special Ladies' Committee, under the chairmanship of Mr. and Mrs. Albert Reichmann, arranged for the entertainment of the ladies, which included, among other things, various tours to interesting points about the city.

The golf and tennis tournaments were held Thursday afternoon. Mr. H. H. Morgan had charge of arrangements for the former and Mr. F. S. Crane looked after the tennis tournament. There were 44 entries in the annual golf tournament and 4 entries in the tennis tournament. There were ten golf prizes distributed to members and two prizes to guests. The A.S.T.M. Championship Golf Cup was won by Homer Farmer. Other prize winners in the golf tournament were F. G. Carrell, H. B. Emerson, H. P. Bigler, C. A. Plaskett, C. E. Hoyt, J. C. Haswell, W. M. Kinney, M. A. Swayze, L. M. Lurie, G. W. Hutchinson and Robert Glenn. F. S. Crane won, for the third time, the A.S.T.M. Championship Tennis Cup and first prize, and G. C. Wilsnack took second prize.

One of the features of the entertainment provided was a grand tour of the park and boulevard systems of Chicago. This took place on Thursday afternoon and for more than three hours the participants enjoyed seeing the splendid park system of the city and many other interesting points.

Mention should be made of an informal dinner held on Monday evening by Committee D-2 on Petroleum Products and Lubricants, with Dr. R. P. Anderson, Technologist, American Petroleum Institute, as guest of honor. A luncheon to Doctor Nadai, the Marburg lecturer, was given on Wednesday noon.

A number of members availed themselves of the facilities of the Engineers' Club of Chicago which had extended an invitation to members to do so.

Detroit District Meeting

A joint meeting of the Detroit Chapter of the American Society for Steel Treating and the Detroit members of our Society, under the auspices of the Detroit District Committee of which President F. O. Clements is chairman, was held in the Hotel Fort Shelby on Monday evening, May 11. The meeting was preceded by a dinner at which Harvey Campbell, Vice-President and Secretary of the Detroit Board of Commerce, gave a talk on the early days of the automobile industry. About 100 members of the two societies were present.

Mr. Clements, then Vice-President of the Society, acted as technical chairman. He presented a humorous paper giving a Canadian backwoodsman's ideas of the impractical side of a group of scientists engaged in research work in the Canadian Northwest. Two national officers of the A.S.T.M., J. M. Watson, President, and W. H. Eisenman, Secretary, and C. L. Warwick, Secretary-Treasurer of our Society, were present and participated in the program of the evening.

The speaker was E. E. Thum, Editor of *Metal Progress*, who spoke on the subject, "The Testing of Engineering Materials." In this he discussed the various types of tests, including acceptance and serviceability tests. The former are made mostly for uniformity or identification checks, such as, chemical analyses, hardness tests, tension tests, etc. Serviceability tests are the more difficult to make and it is generally impossible to duplicate service conditions exactly. No entirely satisfactory short-time tests have been developed, for example, to determine resistance to wear, corrosion or fatigue. He concluded with a description of the various tests that had been applied to the heat-treated cable wire that had been used in the Mount Hope Bridge and the Ambassador Bridge in Detroit and subsequently replaced. He emphasized the fact that mere acceptance tests are not always the most satisfactory means of determining service-ability.

The meeting was indeed a profitable one. The Society welcomes the opportunity of joining with the local chapters of the American Society for Steel Treating in this way for the discussion of subjects that are of common interest to the two societies, and it is hoped that the present meeting is the forerunner of similar ones in the future.

Chicago District Committee Reorganizes

At the request of the officers and personnel of the former Chicago District Committee, organized two years ago, the Executive Committee has authorized the reorganization of this committee. The organization meeting of the new committee was held on May 5 at the Chicago Engineers' Club at which future plans were discussed.

It was decided to have a division of the Chicago District Committee in Milwaukee. The personnel of the general committee follows:

H. G. Farmer, Universal Atlas Cement Co.
H. H. Morgan, Robert W. Hunt Co.
Frank Randall, Consulting Engineer
H. D. Browne, Chicago and North Western Railway Co.
F. M. Carroll, Holabird & Root
T. L. Condon, Consulting Engineer
J. De N. Macomb, Inland Steel Co.
F. R. McMillan, Portland Cement Assn.
Grant Monk, Illinois Steel Co.

Milwaukee Division:

Ray Newhouse, Allis-Chalmers Manufacturing Co.
Charles Wheatley, A. O. Smith Corp.

H. G. Farmer is chairman of the reorganized committee, H. H. Morgan, vice-chairman and Frank Randall, secretary.

Successful Exhibit of Testing Apparatus Features Annual Meeting

THE outcome of a new undertaking is always awaited with interest, and not without some anxiety concerning its success. It is accordingly quite gratifying to be able to report that the first A.S.T.M. Exhibit of Testing Apparatus and Machines was a complete success from practically every standpoint. In our March issue it was stated that the Exhibit could be made a valuable technical and educational feature of the annual meeting. While it cannot be known exactly how valuable the Exhibit was, it is safe to say that if the expressed opinion of our members, and of the exhibitors as well, is a criterion, an Exhibit is indeed a welcome adjunct to our annual meetings.

In all, there were 48 booths, containing all types and sizes of testing apparatus and equipment. There were 28 industrial exhibitors, who took part in the Exhibit and in addition 11 technical and research exhibitors, three Society committees and a booth displaying A.S.T.M. publications.

Many of those attending expressed satisfaction at seeing such an extensive display of testing apparatus and equipment. There were a great number, too, who expressed surprise that there was available so much newly developed testing apparatus in so many fields.

Technical and Research Exhibits

The Society from the first had stressed the point that the Exhibit should have a scientific and broadly educational atmosphere which would be consistent with the technical nature of A.S.T.M. activities. It was apparent that both the non-commercial and industrial exhibitors had arranged their booth displays in accordance with this concept. As was to be expected, the research laboratories and A.S.T.M. committees, by the very nature of their equipment, were in excellent position to show unusual devices and apparatus of a special and interesting nature. All the research booths warranted and did attract a great deal of attention. The National Bureau of Standards, Washington, exhibited very interesting equipment which involved ballistic determinations, a very accurate psychrometer, and among other interesting apparatus, items of special value to the foundry industry. There was also in this booth one of the most accurate strain gages yet devised—capable of measuring to two one millionths of an inch, and yet of very rugged construction. The Cement Reference Laboratory had on display apparatus used in checking cement-testing equipment and a film depicted cement tests in progress. The Universal Oil Products Co. and the Cooperative Fuel Research Steering Committee had equipment for determining certain properties of gasolines. The former had a set-up for determining the gum-forming properties, and the latter an engine for detonation fuel testing.

The Aluminum Company Research Laboratories had several small but very accurate and highly developed testing

apparatus, including a special Brinell testing machine, an extensometer, and a 3-directional strain measuring device for use under water in connection with dam tests. In the booth of the City of Los Angeles' Bureau of Standards was a very ingenious road roughness recorder, an automatic device for determining the time of set of cement, and a miniature rattler for measuring the toughness of rock. The Bell Telephone Laboratories, Inc., had equipment valuable in the recording of data and the production control of equipment used in telephone and related equipment. In this booth was found a fatigue machine capable of testing 40 samples of sheet metal simultaneously, a filament wire extensometer and several other pieces of unique design. The Western Electric Co., in a neighboring booth, also had special equipment of very peculiar application for testing. Here was apparatus for determining the strength of magnetic fields, permeability of magnetic materials, porosity of thin papers for condensers and for accurate measurements of wire and sheet thickness.

The Engineering Research Department, University of Michigan, had some interesting apparatus, particularly sound analyzing equipment which by means of various colored bulbs indicated the relative pitch of tones. In this booth was also found core-testing equipment and a gyroscopic roll recorder. Westinghouse Electric and Manufacturing Co. sponsored a booth in which Dr. Ing. A. Nadai, the Marburg lecturer for the Thirty-fourth Annual Meeting, displayed apparatus and equipment demonstrating slip in plastic materials. He showed



aisle "A" of A.S.T.M. EXHIBIT

several photomicrographs at high magnification of various examples of slip. In addition, there were wood and wire models, and there was a demonstration of the analogy between the form of sand piled on irregular surfaces (angle of repose) and stress distribution in a plastic body when flow starts. Westinghouse also had a booth in which pieces of miniature testing equipment were displayed.

Committee Exhibits

While relatively few of the Society's committees were able to take part in the Exhibit, yet the committees who did sponsor booths had displays of considerable interest. Committee A-8 on Magnetic Analysis had a booth in which was shown several methods of magnetic and related testing, an induction bridge with oscilloscope and galvanometer detectors. Committee C-5 on Fire Tests of Materials and Construction showed the Dunlap fire tube with an interesting panel on which was displayed photographs of actual tests and a description of the fire tube. Committee D-18 on Natural Building Stones had on view a core-cutting device;

(Continued on page 8)

AMERICAN SOCIETY FOR TESTING MATERIALS BULLETIN

Issued Bi-Monthly

Engineers' Club Building, 1315 Spruce St., Philadelphia, Pa.

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Assistant Secretary

R. E. HESS

Number 51

July 31, 1931

Our Second Mid-West Meeting

A SUCCESSFUL annual meeting, acclaimed by all as outstanding in many respects, is a cause for gratification, especially so in a year of uncertainties, since it represents the culmination of a year's work on the part of standing committees and individuals in the field of materials. It is an indication of the vitality inherent in the technical development work in this field. That the attendance at the present meeting should have exceeded by several hundred the highest attendance of any previous meeting was rather surprising and the reasons therefor not easily determined. The success of the meeting may have been due to the strong technical program, several sessions of which were arranged in cooperation with other societies. The large attendance may have been due to the Exhibit of Testing Apparatus, held for the first time. It may have been due to Chicago's central location and industrial strength.

But whatever the cause, two factors stand out as of especial significance. One of these is the desirability, if not the necessity, of coordinating the efforts of the various agencies functioning in the same field. The sessions arranged under the joint auspices of this Society and other societies interested are sufficient proof that this practice is well worth continuing.

The other factor, which should not fail to impress any member attending the meeting, was the importance that this Society's standardization and research activities have been accorded, and the necessity for developing these activities still further in the future. This was brought out particularly at the session at which the economic significance of specifications was discussed. At this session it was brought home that although the Society's specifications had assumed an important place in industry, still much more may be accomplished both in the development of new specifications and in seeing that the present specifications are utilized. It is only recently that any concerted efforts have been made to see that most effective use is made of these.

Amendments of By-Laws Referred to Ballot

At the recent annual meeting amendments of the By-laws recommended by the Executive Committee were approved unanimously, for reference to letter ballot. A letter ballot on these proposed amendments is a part of the general letter ballot on adoption of standards enclosed with this Bulletin, to be canvassed September 1.

The first amendment affects Sections 1 and 2 of Article I and Section 1 of Article VII. The Executive Committee, in studying membership questions, felt it desirable to provide for a class of Sustaining Members at annual dues of \$100. Such a class of membership will afford a means for members to increase their financial support of Society work to a degree more nearly commensurate with the intrinsic value of that work to them. The Executive Committee has voted that Sustaining Members shall receive all publications of the Society, both regular and special, and an extra set of the standards, if desired, without charge.

The Executive Committee has proposed to amend Article VI, Section 2, to provide that questions affecting the proposed use in a standard or tentative standard of any device or process forming the subject matter of an existing copyright or trade mark be submitted to the Executive Committee for review prior to submission to the Society. The present reference in the By-laws is limited to patented devices or processes.

Annual Address by President Mackenzie

There is being distributed with this Bulletin the annual address, presented by President K. G. Mackenzie at the recent annual meeting of the Society. The members will find it an excellent analysis of the progress made by the Society in recent years and a study of the demands that will be made upon it in the immediate future as well as the steps that he believes should be taken to meet these demands. It is particularly pertinent at this time, in view of the considerations that have been given during the past years to increasing the Society's membership and extending its research and standardization activities.

Society Appointments

Announcement is made of the following appointments:

K. G. Mackenzie as the Society's representative on the Division of Engineering and Industrial Research of the National Research Council, in place of T. D. Lynch, whose term of office has expired.

A. C. Fieldner as the Society's representative at the Third International Coal Conference, to be held at the Carnegie Institute of Technology, Pittsburgh, November 16 to 21, 1931.

P. J. Freeman as the Society's representative on the Joint Committee on Mineral Aggregates of the Highway Research Board.

C. J. Hogue of the West Coast Lumbermen's Association, Seattle, Washington, as the Society's representative at a general conference on proposed standard for red cedar shingles, held under the auspices of the Department of Commerce.

G. B. Haven, Professor of Machine Design, Massachusetts Institute of Technology as the Society's representative on the Sectional Committee on Specifications for Leather Belting which is functioning under the procedure of the American Standards Association with the American Society of Mechanical Engineers as sponsor.

Are We Keeping Up With Progress

A Message From President Clements

THERE are reasons why I should make an acceptable President of this hard-working affiliation of go-getters. In the fall of 1899, I secured my first job as an assistant chemist with the Pennsylvania Railroad at Altoona. My superiors were Charles B. Dudley and F. N. Pease. So I heard lots of discussions about the A.S.T.M. many months before it reached the incorporation stage in 1902. I would have been a charter member of our Society, but my finances would not permit. So my membership dates from 1905, at which time I was studying western railroading on the Union Pacific with Norman Harriman, nephew of E. H. Harriman. During my Union Pacific experience, we standardized all equipment on all the Harriman lines.

Most of the activities of the A.S.T.M. for many years had to do with railroad problems, for in the early days, railroading was one of the largest industries in the country. The steel industry was, however, developing rapidly.

The rapid advancement of the social structure of the world is due in no small measure to communication and transportation. The telegraph, the telephone and the railroads helped greatly to annihilate distance and to extend man's personality into far distant regions. The automobile was in its swaddling clothes when this Society had its inception. Much has happened during the lifetime of the A.S.T.M. Quite recently wireless telephony and telegraphy contributed their magic wonders. And just around the corner is another distance annihilating achievement, television. We have not yet discovered the magic carpet, that will do for mere material substances what these inventions have done for riding, speech and vision.

The last thirty years which spans the life history of this Society has emancipated us from many tedious miles over muddy roads, by means of the self-propelled vehicle, the automobile. The same period of time also encompasses the most spectacular triumph of all, aerial transportation, with speeds unattainable in any other form of transport. It has been my great privilege intimately to watch this development from the very beginning.

During the World War my activities centered in aviation and following the War, I had a commission in the U. S. Army Air Service as a materials specialist which terminated several years ago. The last twelve years sum up my experience in the automobile industry.

It is not easy for me to set forth my experiences—I would not wish to have it construed in any way as an indication of conceit. I am telling these phases of my career for a purpose. I covet for this Society greater activity in all of these fields of endeavor that mean so much to our present-day civilization. The law of the universe is Service; that which is without Service perishes; the environment of Service is Joy; the Atmosphere of Service is Peace; the Miracle of Service is that you are never defeated. In Service nothing is lost. I am hopeful that this Society, despite its past record for many achievements, can still be more useful as the years go by. For the value of a man or an organization is measured by the Service it renders to Society. The A.S.T.M. is a Service Society.

Each epoch of civilization has been marked with a new method of transportation. It is a significant fact that more has been accomplished in perfecting all kinds of transportation during the last one hundred years than in all the foregoing 300,000 years put together.

From the day the wheel was invented down to, say, thirty years ago, road transport was limited to four miles per hour and twenty miles per day. Man, after all those centuries, could travel the highways of the world no faster than his horse.

In 1840, we had in the United States 2755 miles of railroad trackage. From this date on the railroads began to link city to city and state to state. The one operation which must go on functioning and increasing in capacity and efficiency if the world is to progress—the one requisite for placing the right goods in the proper market at the psychological moment—is transportation. Motor trucks have been characterized as the fingers of the arm of transportation which perfect and complete the process of reaching out into the far corners of the world for the goods needed by the rest of the world. They supplement rather than supplant the waterways and railroads and do so in an efficient and economic manner.

All of these marvelous developments are dependent on materials. The materials with which this Society is concerned are the building blocks for still greater achievements. I am particularly impressed with the recent activities of our Society that have to do with research and the dissemination of new knowledge. New materials and new knowledge to assist expeditions that begin where present knowledge ends.

We are constantly being asked to develop new methods new tests, new standards. It is a fine testimonial of our worthwhileness.

An Assay of Great Interest

Dr. Samuel W. Stratton some years ago prepared a list entitled: The Nine Wonders of the Modern World. It read as follows:

1. The discovery of bacteria and the application of bacteriology to human welfare.
2. The progress of our knowledge of the constitution of matter and radiation phenomena.
3. The progress of electricity as to light, power and communication.
4. The internal combustion engine and its application.
5. Modern methods of structural building with both metal and cement.
6. Modern metallurgy.
7. Processes of food preservation, including canning and refrigeration.
8. Aircraft and aerial navigation.
9. The development of machinery to lessen the burden of labor and to increase its output.

My aspiration as your new President is to cement further our affiliation with some of these newer industries. In this connection, I am not forgetful of the widespread nature of our present program and the heritage that comes from very serviceable past performance. We are having continually closer affiliation with other national engineering and technical societies. I am deeply interested in all these relationships. The Detroit Regional Meeting, March 1930, was a joint session with the Detroit chapters of the Society of Automotive Engineers, the American Society for Steel Treating and the National Association of Purchasing Agents; the Symposium on Welding, held in conjunction with the Pittsburgh Regional Meeting, similarly was developed in collaboration with the American Welding Society. Sessions

of the recent annual meeting in Chicago were arranged with the cooperation of the American Society of Mechanical Engineers, the Western Society of Engineers and the American Foundrymen's Association. Fine! We should cooperate whole-heartedly with such organizations. We serve them all.

To enlarge our activities means more committees, more publications, more reports, more expense. Growth in membership is our principal source of revenue. Like all similar organizations, we have income problems resulting from present business conditions. The younger engineers have met with many reverses. Our Society has weathered the storm in splendid shape. I bespeak the whole-hearted support of our membership continually to increase our financial status, which will permit us to accept new obligations and be more serviceable as a Society. Make your slogan—"Get a new Member" and we will more than double our usefulness.

The Executive Committee for the coming year is a very representative group. Let us compare them with Doctor Stratton's list just quoted.

We have one representative for the railroads—our new Vice-President; modern metallurgy, one of the outstanding experts of our country. Automotive and aerial transportation are well represented on the new committee, which includes in addition men from the rubber, textiles, fuels and lubricants fields.

The structural field has representation in both cement and metals. Light, power and communication have two proponents. Good roads have proper adherents. The development of modern machinery and tools and Doctor Stratton's seventh item dealing with processes of food preservation are not represented on our present Executive Committee. The application of bacteriology to human welfare seemingly belongs to our medical friends.

The A.S.T.M. is abreast of the times. You can be proud of your membership in this Society. Let us be alert and aggressive always. The new developments of today may be the standards of tomorrow. Standardization must always go forward without building fences to prevent development or block future progress. Let us standardize materials and processes but be very careful always not to standardize our minds.

P. O. Clement

Chicago Museum of Science and Industry

A committee has recently been appointed by the Executive Committee to serve in an advisory capacity to the Chicago Museum of Science and Industry in the development of suitable exhibits relating to the testing of materials. This committee will cooperate with the Chicago Museum in a manner similar to that of the committee organized a year or more ago advisory to the Benjamin Franklin Memorial Museum in Philadelphia. H. F. Moore, Professor of Engineering Materials, University of Illinois, who is chairman of the Subcommittee on Apparatus of the Benjamin Franklin Memorial Museum Committee, will serve as the chairman of the Chicago group, thus coordinating the activities of the committees. The complete personnel follows:

H. F. Moore (Chairman), University of Illinois	
F. S. Crane, Illinois Steel Co.	H. H. Morgan, Robert W. Hunt
F. R. McMillan, Portland Cement Assn.	Co.
	L. W. Spring, Crane Co.

A.S.T.M. Exhibit

(Continued from page 5)

a shear punch for use in making shearing tests and other apparatus used in testing stone.

Industrial Exhibitors

The commercial exhibitors had a wealth of equipment on display including some fine machines from abroad. The following exhibitors participated and much of the credit for our first Exhibit is due to their interest:

Baldwin-Southwark Corp.	The Gaertner Scientific Corp.
Bausch & Lomb Optical Co.	The Emil Greiner Co.
Christian Becker, Inc.	J. B. Hayes, Inc.
The Brown Instrument Co.	Humboldt Manufacturing Co.
Burgess-Parr Co.	Instruments Publishing Co.
Fred S. Carver	E. Leitz, Inc.
Central Scientific Co.	Morehouse Machine Co.
Consistometer Corp.	Newark Wire Cloth Co.
Precision Scientific Co.	
Precision Thermometer and Instrument Co.	
Rascher and Betzold	
Riehle Bros. Testing Machine Co.	
E. H. Sargent and Co.	
The Shore Instrument and Manufacturing Co.	
Steel City Testing Laboratory	
Alfred Suter	
C. J. Tagliabue Manufacturing Co.	
Testing Machines, Inc.	
The Thompson Grinder Co.	
The W. S. Tyler Co.	

Solicitation of Members' Comments

The Advisory Committee on the Exhibit, a subcommittee of the Executive Committee, composed of Cloyd M. Chapman, H. E. Smith, and H. N. Van Deusen, and the Secretary-Treasurer, would welcome from members any suggestions or criticism of the Exhibit.

Committee on Mortars for Unit Masonry

The organization meeting of Committee C-12 on Mortars for Unit Masonry was held in Chicago on June 24. The meeting was opened by the Secretary-Treasurer, who explained the steps leading to the organization of the committee and defined the scope of the committee briefly as follows:

"Research to promote knowledge of properties and tests of mortars for unit masonry and development of methods of test and specifications for such mortars. It is intended that the activities of the committee shall be closely correlated with other interested committees of the Society."

The tentative personnel of the committee as appointed by the Executive Committee comprises representatives of producers of the various cementing materials and of mortars, the manufacturers of building materials which are bonded by mortars, and consumers and general interests.

The temporary chairman, Prof. R. E. Davis, University of California, Berkeley, Calif., then outlined a provisional program of the activities of the committee, of which there was general discussion. In discussing the details of administration it was decided to organize a temporary advisory committee with authority to appoint technical subcommittees. The committee designated Professor Davis, Mr. J. W. Ginder and the Secretary-Treasurer as a special committee to determine the personnel of the temporary advisory committee.

Until permanent organization is effected, the Secretary-Treasurer is acting as temporary secretary of the committee and Professor Davis as temporary chairman.

Committee Standardization Activities

Supplementing the summaries, appearing elsewhere in this BULLETIN, on the 25 new tentative standards submitted at the annual meeting, and the actions referred to letter ballot for the adoption of 18 new standards and revisions of 14 standards, there is given below a brief review of new projects now under way in standing committees, which, together with the annual reports, indicates the extensiveness of committee standardization activities.

The Committee on Steel is collecting data from various sources as to types and requirements of alloy-steel castings as a preliminary step in the preparation of specifications. It is also cooperating with the Pressed Metal Institute on a program of investigating steel for deep drawing and has made good progress on specifications for steel sheets for cars.

The Committee on Cast Iron has appointed a new subcommittee to classify cast iron and develop specifications therefor. This committee has also decided that an attempt should be made to develop test bars which will represent the metal in the casting and not the metal in the ladle and will undertake the development of suitable test bars. Work is also under way on automotive castings and on specifications for culvert pipe.

Studies are being made by the Committee on Corrosion of Iron and Steel on certain plated metallic coatings which are of considerable public interest.

The Committee on Malleable Castings has under development specifications for cupola malleable iron and is contemplating a revision of the specifications for malleable castings to meet higher strength requirements for railroad work.

Attention is now being directed by Committee A-10 on Iron-Chromium, Iron-Chromium-Nickel and Related Alloys to standardization of some of the more widely used alloys falling within its scope.

The Committee on Light Metals and Alloys is contemplating the preparation of specifications for aluminum alloys in the form of forgings suitable for engine crankcases, locomotive parts and miscellaneous forgings. Specifications for Alelad, an aluminum-coated material, are also under preparation. This material is finding considerable application in aircraft construction as it eliminates corrosion embrittlement to which uncoated aluminum alloys are subjected under more severe corrosive conditions.

The Committee on Fire Tests of Materials and Construction has organized a new Subcommittee on Fire Tests of Wall Opening Protectives to consider formulation of standard methods for conduct of fire tests on fire doors and other fire stops for protection of wall openings against fire passage.

The activities of the Committee on Lime include a special study of existing data on hydraulic lime, a further revision of the existing standard specifications for hydrated lime for structural purposes based on experimental work in connection with the determination of plasticity, the investigation of a new method for soundness of limes as developed by the U. S. Bureau of Standards in regard to its applicability for substitution in place of the existing method, and the preparation of specifications for pulverized quicklime.

The Committee on Bituminous Waterproofing and Roofing Materials is proceeding with its consideration of bituminous joint compounds for sewer pipe.

In the textile materials field, a new subcommittee is being organized on silk. Work has been started on collecting data for purposes of drawing up specifications for breaker fabrics and specifications for tolerances and test methods for braided tubular cotton sleeving. A study of methods for determining the sizing content in cotton tapes and method for determining their acidity and alkalinity is being made. Work is also being carried on as to the best methods of testing rayon fabrics and studies to determine the magnetic iron content of asbestos.

Appointment to Committee E-9 on Research

Dr. H. W. Gillett, Director, Battelle Memorial Institute, Columbus, Ohio, has been appointed a member of Committee E-9 on Correlation of Research for five years, to succeed Dr. G. K. Burgess, whose term expired with the recent annual meeting. Doctor Burgess has been a member of the committee since its organization in 1924 and has rendered inestimable service during his term of membership.

Forthcoming Society Publications

Symposium on Welding.—As mentioned elsewhere in this Bulletin, a compilation is being prepared of the eleven papers, together with discussion, presented in connection with the Pittsburgh Regional Meeting in March. This compilation will comprise approximately 160 pages and should be available in September.

Year Book.—The 1931 Year Book, about 340 pages, containing the Charter and By-laws, the list of members, geographical distribution of members, personnel of standing committees and list of standards and tentative standards, is now in course of preparation. This volume will be ready for distribution to all members about September 10.

1931 Supplement to the Book of Standards.—The first supplement to the 1931 Book of A.S.T.M. Standards, containing the 31 standards approved or revised at the recent annual meeting and now out to letter ballot for adoption, will comprise approximately 128 pages. It is now in course of preparation and should be available for distribution about September 10.

Book of Tentative Standards.—The special volume containing all of the tentative standards of the Society (169) in their latest revised form is now in preparation. Although the current Proceedings contain the new and revised tentative standards, many members find it a convenience to have a compilation of all tentative standards bound in one cover. Each new member as he qualifies is furnished with a copy of this publication. The 1931 book will be available about October 15.

Combined Index of Standards.—A combined index of all standards and tentative standards of the Society will again be issued complete with references to the publications in which the standards appear. This index should be available early in November and will be distributed to all members and others on request.

Symposium on Effect of Temperature on the Properties of Metals.—The papers presented at the Symposium on Effect of Temperature on the Properties of Metals held at the recent annual meeting in cooperation with the American Society of Mechanical Engineers are being assembled, with discussion, in a separate volume. This volume will comprise approximately 750 pages for which a charge will be made to cover the cost. It is expected distribution will be made about November 1.

Proceedings.—The publication of the Proceedings of the recent annual meeting containing committee reports, new and revised standards, technical papers and discussions, will be taken in hand as promptly as possible. It is expected that distribution to members in good standing will be completed about December 15. The size of Parts I and II of the Proceedings will aggregate approximately 1850 pages.

Five-Year Index to Proceedings.—In line with the Society's practice of issuing a collective Index to Proceedings at five-year intervals, work is now under way compiling the index of Volumes 26 to 30 inclusive. The Index should be available about October 1.

Committee on 1932 Marburg Lecture

The Executive Committee has appointed the committee to select the Edgar Marburg lecturer for 1932. Under the rules governing the Lecture this committee consists of a member of the Executive Committee, a member of Committee E-9 on Correlation of Research and a member of Committee E-6 on Papers and Publications. The personnel is as follows: Arthur W. Carpenter, Manager of Testing Laboratories, B. F. Goodrich Co., Akron, Ohio, appointed from Committee E-6; K. G. Mackenzie, Consulting Chemist, The Texas Co., New York City, appointed from the Executive Committee; and H. F. Moore, Professor of Engineering Materials, University of Illinois, Urbana, Ill., appointed from Committee E-9. Mr. Mackenzie will serve as chairman.

Committee E-6 on Papers

The terms of three members of Committee E-6 on Papers and Publications expired with the recent annual meeting, namely, those of T. G. Delbridge, H. C. Knerr and F. E. Richart. Messrs. Knerr and Richart have accepted reappointment for a further term of three years and J. B. Rather, Chief Chemist, Standard Oil Co. of New York, has been appointed to succeed Doctor Delbridge.

The committee has before it a number of suggestions for topics for inclusion in the program for the annual meeting of the Society next year in Atlantic City. These are in the nature of symposiums as follows:

The Engineering Properties of Steel Castings, being developed in cooperation with the American Foundrymen's Association;

Recent Developments in Magnetic Analysis, sponsored by the Society's Committee A-8 on Magnetic Analysis;

The Significance of Various Tests in Judging the Quality of Concrete, sponsored by Committee C-9 on Concrete and Concrete Aggregates;

Subgrade Materials, sponsored by Committee D-4 on Road and Paving Materials;

Synthetic Resins, sponsored by Committee D-1 on Preservative Coatings for Structural Materials;

Symposium on the Acquisition of Good Data, sponsored by the Committee on Presentation of Data.

Other important papers in the fields covered by the Society are in prospect.

Advertising in Index to A.S.T.M. Standards

Advertising will again be included in the annual Index to A.S.T.M. Standards and Tentative Standards, to appear early in November. There is an ever-increasing demand for this Index, so that the circulation of the Index is increasing quite rapidly. This wider circulation, of course, gives added value to the advertising section.

Advertisements of the following character are solicited for the Index:

1. Advertisements by manufacturers and suppliers of engineering materials and products;
2. Advertisements by manufacturers and suppliers of testing machines, apparatus and equipment; and
3. Professional cards of consulting engineers, metallurgists, chemists, testing engineers and testing laboratories.

Members and others interested may secure further information, including advertising rates, upon application to the Secretary-Treasurer, using the enclosed return card for the purpose.

New Tentative Standards

The Society approved by action at the annual meeting the publication as tentative standards of the following 17 new specifications and 8 new methods of test, which increases the total number of tentative standards to 169:

Metals:

Specifications for Normalized and Tempered Alloy-Steel Forgings for Locomotives (A 133-31 T), submitted by Committee A-1.
Methods of Chemical Analysis of Silver Solders (B 81-31 T), submitted by Committee B-2.

Specifications for Drawn or Rolled 80 per cent Nickel, 20 per cent Chromium Alloy for Electrical Heating Elements (B 82-31 T), submitted by Committee B-4.

Specifications for Drawn or Rolled Alloy, 60 per cent Nickel, 15 per cent Chromium, Balance Iron, for Electrical Heating Elements (B 83-31 T), submitted by Committee B-4.

Method of Test for Determining the Temperature-Resistance-Constants of Resistance Alloys (B 84-31 T), submitted by Committee B-4.

Specifications for Aluminum-Base Alloy Die Castings (B 85-31 T), submitted by Committee B-6.

Specifications for Zinc-Base Alloy Die Castings (B 86-31 T), submitted by Committee B-6.

Concrete:

Specifications for Curing Portland-Cement Concrete (C 80-31 T), submitted by Committee C-9.

Specifications for Curing Portland-Cement Concrete Slabs with Bituminous Coverings (C 81-31 T), submitted by Committee C-9.

Specifications for Curing Portland-Cement Concrete Slabs with Calcium Chloride Admixture (C 82-31 T), submitted by Committee C-9.

Specifications for Curing Portland-Cement Concrete Slabs by Surface Application of Calcium Chloride (C 83-31 T), submitted by Committee C-9.

Specifications for Curing Portland-Cement Concrete Slabs with Wet Coverings (C 84-31 T), submitted by Committee C-9.

Method of Routine-Analysis of the Cement Content of Hardened Portland-Cement Concrete (C 85-31 T), submitted by Committee C-9.

Method of Test for Apparent Specific Gravity of Coarse Aggregates in a Saturated Condition (C 86-31 T), submitted by Committee C-9.

Method of Test for Structural Strength of Fine Aggregate Using Constant Water-Cement-Ratio Mortar (C 87-31 T), submitted by Committee C-9.

Paint Solvents, Pigments, Enamels:

Specifications for Acetone (D 329-31 T), submitted by Committee D-1.

Specifications for Beta Butoxy Ethanol (Synthetic) (D 330-31 T), submitted by Committee D-1.

Specifications for Beta Ethoxy Ethanol (Synthetic) (D 331-31 T), submitted by Committee D-1.

Method of Test for Tinting Strength of White Pigments (D 332-31 T), submitted by Committee D-1.

Methods of Testing Nitrocellulose Clear Lacquers and Lacquer Enamels (D 333-31 T), submitted by Committee D-1.

Rubber Products:

Specifications for Rubber Pump Valves (D 151-31 T), submitted by Committee D-11.

Textile Materials:

Specifications and Test Methods for Cotton Goods for Rubber and Pyroxylin Coating (D 334-31 T), submitted by Committee D-13.

Specifications for 0.007-in. Cotton Tape (D 335-31 T), submitted by Committee D-13.

Specifications for Enameling Duck for the Tire Industry (D 336-31 T), submitted by Committee D-13.

Method of Determining Relative Humidity (D 337-31 T), submitted by Committee D-13.

The following four specifications were also approved for publication as tentative to supersede when adopted present standards having corresponding titles and serial designations:

Specifications for Steel Plates of Flange and Firebox Qualities for Forge Welding (A 89-31 T), submitted by Committee A-1.

Specifications for Gypsum Wall Board (C 36-31 T), submitted by Committee C-11.

Specifications for Gypsum Lath (C 37-31 T), submitted by Committee C-11.

Specifications for Tolerances and Test Methods for Silk and Cotton Tapes (D 259-31 T), submitted by Committee D-13.

These tentative standards will appear in Part I of *Proceedings* for 1931 and in the Book of Tentative Standards.

Matters Referred to Letter Ballot

By action of the annual meeting, the following 18 tentative standards and revisions of 14 existing standards were referred to letter ballot vote of the membership of the Society for adoption as standard. Detailed information concerning all matters referred to letter ballot is given in the preprints of the committee reports issued to the members in advance of the meeting and in the Summary of the Proceedings. Amendments of three articles of the By-laws, referred to elsewhere in this BULLETIN and in the Summary of the Proceedings, were also referred to letter ballot of the Society:

AMENDMENTS TO BY-LAWS

- Article I. Members and Their Election:* Revision of Sections 1 and 2.
Article VI. Procedure Governing the Adoption of Standards: Revision of Section 2.
Article VII. Dues: Revision of Section 1.

REVISIONS OF EXISTING STANDARDS

Standard Specifications for:

- Alloy-Steel Bolting Material for High-Temperature Service (A 96 - 27), recommended by Committee A-1.
- Welded Wrought-Iron Pipe (A 72 - 30), recommended by Committee A-2.
- High-Test Gray-Iron Castings (A 88 - 29), recommended by Committee A-3.
- Hydrated Lime for Structural Purposes (C 6 - 24), recommended by Committee C-7.
- Specifications and Tests for Hollow Burned-Clay Load-Bearing Wall Tile (C 34 - 30), recommended by Committee C-10.
- Specifications and Tests for Hollow Burned-Clay Fireproofing, Partition and Furring Tile (C 56 - 30), recommended by Committee C-10.
- Specifications and Tests for Hollow Burned-Clay Floor Tile (C 57 - 30), recommended by Committee C-10.
- Basic Carbonate White Lead (D 81 - 24), recommended by Committee D-1.
- Red Lead (D 83 - 24), recommended by Committee D-1.

Standard Methods of:

- Test for Softening Point of Fire-Clay Brick (C 24 - 28), recommended by Committee C-8.
- Making and Storing Compression Test Specimens of Concrete in the Field (C 31 - 27), recommended by Committee C-9.
- Securing Specimens of Hardened Concrete from the Structure (C 42 - 27), recommended by Committee C-9.
- Testing Electrical Insulating Oils (D 117 - 27), recommended by Committee D-9.

Standard Definitions of:

- Terms Relating to Hollow Tile (C 43 - 24), recommended by Committee C-10.

TENTATIVE STANDARDS TO BE ADOPTED AS STANDARD

Tentative Specifications for:

- Aluminum-Base Alloy Castings (B 26 - 30 T), revised as recommended by Committee B-7.
- Aluminum-Base Casting Alloys in Ingot Form (B 58 - 30 T), revised as recommended by Committee B-7.
- Aluminum-Alloy (Duralumin) Sheet (B 78 - 30 T), recommended by Committee B-7.
- Aluminum-Manganese Alloy Sheet (B 79 - 30 T), recommended by Committee B-7.
- Aluminum Powder for Paints (Aluminum Bronze Powder) (D 266 - 28 T), recommended by Committee D-1.
- Gold Bronze Powder (D 267 - 28 T), recommended by Committee D-1.
- The Toxic Ingredients in Anti-Fouling Paints (D 277 - 28 T), revised as recommended by Committee D-1.

Tentative Methods of:

- Testing Brick (Compression, Flexure and Absorption) (C 67 - 30 T), recommended by Committee C-3.
- Test for Alkalinity or Acidity of Pigments (D 278 - 28 T), recommended by Committee D-1.
- Test for Bleeding of Pigments (D 279 - 29 T), recommended by Committee D-1.
- Test for Hygroscopic Moisture (and Other Matter Volatile Under the Test Conditions) in Pigments (D 280 - 28 T), recommended by Committee D-1.

- Test for Oil Absorption of Pigments (D 281 - 28 T), revised as recommended by Committee D-1.
- Routine Determination of Acetone Extract in Dry Lampblack and Dry Bone Black (D 305 - 29 T), recommended by Committee D-1.
- Test for Determination of Polishing Lubricant in Aluminum Powder for Paints (Aluminum Bronze Powder) (D 306 - 29 T), recommended by Committee D-1.
- Test for Size of Anthracite (D 310 - 29 T), revised as recommended by Committee D-5.
- Test for Water Absorption of Slate (D 221 - 27 T), revised as recommended by Committee D-16.
- Flexure Testing of Slate (Determination of Modulus of Rupture and Modulus of Elasticity) (D 222 - 27 T), revised as recommended by Committee D-16.

Tentative Definitions of:

- Terms Relating to Refractories (C 71 - 30 T) (terms "spalling" and "pyrometric cone equivalent"), recommended by Committee C-8.

When adopted by letter ballot of the Society the above revised standards and newly adopted standards will be published in the 1931 Supplement to Book of A.S.T.M. Standards.

District Committee Organizes In Cleveland

In accordance with present plans of furthering the activities of the Society in certain industrial centers, and bringing these activities closer to the general membership, a district committee of the Society has been authorized for the Cleveland District. An organization meeting was held on May 12, at which plans for the furthering of Society work were discussed.

The Cleveland District Committee has recommended that a regional meeting be held in Cleveland in the spring of 1932, at which it is proposed to hold a Symposium on Rubber Testing. While plans have not yet progressed sufficiently to permit of definite announcement, it is hoped that the annual spring group meeting of committees may also be held in conjunction with this regional meeting. The views of the officers of standing committees will be solicited in this connection.

Since Akron and Youngstown are so close geographically to Cleveland and our membership in these two industrial centers is quite extensive, it has been decided to have an Akron Division and a Youngstown Division of the Cleveland District Committee. The personnel of the general committee is as follows:

- H. A. Schwartz, National Malleable and Steel Castings Co.
- W. H. Eisenman, American Society for Steel Treating
- D. M. Avey, *The Foundry*, Penton Publishing Co.
- R. J. Anderson, Consulting Engineer
- H. M. Boylston, Case School of Applied Science
- F. C. Elder, American Steel and Wire Co.
- J. V. Emmons, Cleveland Twist Drill Co.
- Zay Jeffries, Aluminum Company of America
- H. J. Love, National Slag Assn.
- C. B. Murray, Crowell and Murray, Inc.
- A. J. Tuscany, Gray Iron Inst.
- E. E. Ware, The Sherwin-Williams Co.

Akron Division:

- Arthur W. Carpenter, B. F. Goodrich Co.
- J. J. Allen, Firestone Tire and Rubber Co.
- E. G. Kimmich, Goodyear Tire and Rubber Co.

Youngstown Division:

- G. A. Reinhardt, Youngstown Sheet and Tube Co.
- L. B. Grindlay, Republic Steel Corp.
- Fred Hubbard, Standard Slag Co.

H. A. Schwartz has been appointed chairman of the general district committee, W. H. Eisenman, vice-chairman and D. M. Avey, secretary. Arthur W. Carpenter is chairman of the Akron Division and G. A. Reinhardt, chairman of the Youngstown Division.

Papers To Be Given At International Congress

Announcement was made in the April BULLETIN of the first International Congress of the New International Association for the Testing of Materials, to be held September 6-12 in Zurich, in the buildings of the Swiss Federal Polytechnicum.

Americans, all members of the American Society for Testing Materials, will have a prominent part in the program and the following papers will be given by the authors designated:

Group A—Metals

- "Advances in Microscopy," by F. F. Lucas
- "Stress Corrosion of Metals," by D. J. McAdam, Jr.

Group B—Non-Metallic Inorganic Materials

- "Designing Concrete for High Strength, Low Permeability and Low Shrinkage," by W. A. Slater
- "Stresses and Strains in Reinforced Concrete Columns," by F. E. Richart

Group C—Organic Materials

- "Sampling Coal," by W. A. Selvig
- "Tests for Bituminous Materials," by Prevost Hubbard

Group D—Questions of General Importance

- "Present Status of Particle Size Measurement," by L. T. Work
- "Calibration of Testing Machines," by H. F. Moore
- "Ideal and Practical (Test) Relations Between Elasticity and Plasticity, Tenacity and Brittleness," by F. B. Seely

Anyone who is interested in participating in the discussion of any of the papers listed above or of the many other papers to be given by technical men abroad should procure additional information from W. H. Fulweiler, United Gas Improvement Co., Philadelphia.

Prof. H. F. Moore, Past-President of the A.S.T.M., will be the official head of the American delegation, being the personal representative of W. H. Fulweiler, who is unable to make the trip. Mr. Fulweiler is the A.S.T.M. representative on the Permanent Committee which governs the International Association.

Symposium on Welding to be Published

The papers presented at the Symposium on Welding, held in connection with the Pittsburgh Regional Meeting, March 18, will be assembled, together with the discussion, and it is planned to publish them in the near future. The papers, eleven in number, are as follows:

- "General Survey of Welding Process," by F. T. Llewellyn
- "Welding Processes Applicable to Aluminum," by W. M. Dunlap
- "The Quality of Materials for Fusion Welding," by C. R. Texter and F. N. Speller
- "Modern Application of Arc Welding," by A. M. Candy
- "Recent Developments in Gas Welding and Cutting," by E. J. W. Egger
- "Stethoscopic Examination of Welded Products," by J. R. Dawson
- "Tests of Welding Made by the Watertown Arsenal," by G. F. Jenks
- "Gamma Ray Testing of Welds," by G. E. Doane
- "Magnetic Methods of Testing Butt Welds," by T. R. Watts
- "Fatigue and Impact Testing of Welded Products," by T. M. Jasper
- "Welding Inspection," by R. Kraus

The Symposium will comprise approximately 160 pages and will be furnished in cloth binding to conform to the binding of the Proceedings. The charge for this publication has not yet been announced but it will be nominal in character, sufficient to cover the cost of publication. Orders will be solicited in about a month from date.

Personals

News items concerning the activities of our members will be welcomed for inclusion in this column.

E. D. BOYER, member of the Society since 1913 and one of the "old timers" of the Cement Committee, retired from active business on April 30. Mr. Boyer for many years was chairman of the Entertainment Committee in connection with the annual meetings and was responsible for the success of the annual golf tournaments.

F. R. BAXTER, the representative of the Vacuum Oil Company in its Society membership since 1907, was honored by his company at a banquet and entertainment on April 30 in recognition of the completion of 50 years' service with the company.

G. S. BARTLETT has retired from the Universal Atlas Cement Co. and is associated with the Portland Cement Assn. at Chicago.

H. J. GILKEY, Professor of Civil Engineering, University of Colorado, will, on September 1, assume the duties of Head, Department of Theoretical and Applied Mechanics, Iowa State College, Ames, Iowa.

J. M. LESSELLS, connected with the Westinghouse Electric and Manufacturing Co., has been transferred from Pittsburgh to the South Philadelphia Works as Manager of Engineering.

P. L. GRADY, formerly Secretary of the National Association of Wooden Box Manufacturers, is now connected with the Mead Sales Co., Chicago.

J. H. NEAD has severed his connection with the American Rolling Mill Co. and is now Chief Metallurgist, Inland Steel Co., East Chicago, Ind.

H. E. HILTS has resigned from the Cuban Portland Cement Corp. at Havana, Cuba, to be Vice-President, Lone Star Cement Co., Philadelphia.

J. M. SANDERSON is now with the American Cyanamid Co., New York City.

W. F. FARAGHER has resigned from the Universal Oil Products Co. to become Research Chemist, Vacuum Oil Co., Paulsboro, N. J.

D. D. MCGUIRE is now Assistant to President, Standard Building Materials Co., St. Louis, Mo., having withdrawn as District Engineer, National Sand and Gravel Assn.

D. A. ABRAMS has resigned as Director of Research, International Cement Corp. and will establish a research laboratory in New York.

ERNEST ASHTON has severed his connection with the Lehigh Portland Cement Co.

J. S. MACGREGOR, formerly Consulting Engineer, Liberty Industrial Corp., is now connected with The New York Trust Co.

ARTHUR SCHRODER has severed his connection with the Fisher Scientific Co. and is now with the Aluminum Research Laboratories at New Kensington, Pa., as Chief Engineer.

C. E. SKINNER, Assistant Director of Engineering, Westinghouse Electric and Manufacturing Co. and member of the Board of Directors, American Standards Association, has been appointed as the A.S.A. representative on the Council of the International Standards Association. This Association is a federation of eighteen national standardizing bodies and the Council is composed of the President of the I.S.A. and six other members, each representing a national standardizing body.

A. C. FIELDNER, Chief Engineer, Experiment Stations Division, U. S. Bureau of Mines and C. E. SKINNER were awarded the Lamme Meritorious Achievement Medal by Ohio State University on June 8. This gold medal is awarded annually to a graduate of one of the departments of the University, for meritorious achievement in engineering or the technical arts. Mr. Fieldner is a member of the first class in chemical engineering graduated from Ohio State University and is one of the first two recipients of the Lamme Medal.

The following members of the Society are directors of the American Foundrymen's Association: W. D. Moore, F. L. Wolf, N. K. B. Patch and D. M. Avey. They were elected at the annual A.F.A. business meeting held May 7. These men will serve from 1931 to 1934.

F. N. SPELLER, on May 22 presented a comprehensive paper on "Cooperative Research in the Iron and Steel Industry" before the American Iron and Steel Institute, New York.

C. E. SKINNER and W. B. KOUWENHOVEN were elected President and Vice-President, respectively, of the American Institute of Electrical Engineers at the annual meeting of that Society on June 22 at Asheville, N. C.

New Members to July 15, 1931

The following 118 members were elected from March 6 to July 15, 1931, making the total membership, exclusive of student members, 4358:

Company Members (17)

Ames and Co., W., A. S. Ames, Treasurer, 417 Communipaw Ave., Jersey City, N. J.
 Champion Fibre Co., The, R. W. Griffith, Chem. Engr., Canton, N. C.
 Chinese Government Railroad, Peiping Liaoning Line, Material Division, C. J. Shih, Works Manager, Tientsin, China.
 Colledge, General Sales Agent, Inc., E. W., J. C. Houser, Chemist, Box 356, Jacksonville, Fla.
 Federated Metals Corp., R. G. Raphael, Sales Manager, Chicago Office, 41st and Wallace Sts., Chicago, Ill.
 Ferrocarriles del Estado Argentina, Director del Laboratorio de Ensayos de Materiales, Dique 4, Puerto de la Capital, Buenos Aires, Argentina.
 Glancy Malleable Corp., L. D. Harkrider, Secretary-Treasurer, 840 Wisconsin Central Ave., Waukesha, Wis.
 Gulf Refining Co., Herbert Henderson, Manager of Constr., Box 1214, Pittsburgh, Pa.
 Industrial Steel Casting Co., J. L. Tillman, Jr., Vice-President and Works Manager, Box C, Station E, Toledo, Ohio.
 Interstate Amiesite Co., Inc., I. H. Boggs, Test and Research Engr., Box 676, Martinsburg, W. Va.
 Kinnear Manufacturing Co., Boyd Cherry, Manager, New York Office, 342 Madison Ave., New York City.
 Moloch Foundry and Machine Co., R. M. Kanik, President and General Manager, Kaukauna, Wis.
 Outdoor Advertising Assn. of America, Inc., John Paver, Engr., 165 W. Wacker Drive, Chicago, Ill.
 Sand-Lime Brick Assn., The, J. L. Jackson, President, Saginaw, Mich.
 Standard Portland Cement Co., A. H. Ingle, Secretary and Treasurer, Box G, Painesville, Ohio.
 Syracuse Washing Machine Corp., P. Eduard Geldhof, Chief Engr., Spencer and Solar Sts., Syracuse, N. Y.
 Western Lime and Cement Co., The, F. C. Welch, Chemist, Box 1615, Milwaukee, Wis.

Individual and Other Members (95)

Aikin, H. B., Assistant Professor of Civil Engineering, University of Tennessee, Knoxville, Tenn.
 Barton, J. P., Section Engr., Radio Eng. Dept., General Motors Radio Corp., 1420 Wisconsin Boulevard, Dayton, Ohio.
 Battelle Memorial Inst., R. A. Sherman, Fuel Engr., 505 King Ave., Columbus, Ohio.
 Bauer, Leo, Chief Inspector, American Airplane and Engineering Corp., Farmingdale, Long Island, N. Y.
 Beaudway, W. L., Vice-President, Chicago Malleable Castings Co., 12000 S. Racine Ave., Chicago, Ill.
 Binney, R. L., Vice-President and Metallurgist, The Binney Castings Co., 1801 Clinton St., Toledo, Ohio.
 Bonnot, L. C., President, The Bonnot Co., Canton, Ohio.
 Borchard, E. K., Technical Service Manager, Universal Atlas Cement Co., New York City. For mail: 316 E. Dudley Ave., Westfield, N. J.
 Bridgeman, O. C., Research Associate, U. S. Bureau of Standards, Washington, D. C.
 Cadwell, S. M., Director, Development Division, United States Rubber Co., 6600 E. Jefferson Ave., Detroit, Mich.
 California Division of Highways, T. E. Stanton, Materials and Research Engr., 3435 Serra Way, Sacramento, Calif.
 Carpenter, Arthur Howe, Associate Professor of Metallurgy, Armour Institute of Tech., Chicago, Ill. For mail: 811 Bell Ave., La Grange, Ill.
 Carpenter, Arthur W., Manager of Testing Labs., The B. F. Goodrich Co., Akron, Ohio. For mail: 56 Hamilton Ave., Akron, Ohio.
 Chester, W. F., Chemist, President of the Borough of Queens, Long Island City, N. Y. For mail: 153-29 90th Ave., Jamaica, N. Y.
 Connor, C. C., Assistant Engr., New Jersey Bell Telephone Co., Room 1305, 540 Broad St., Newark, N. J.
 Crum, B. M., Chief Chemist, The Stanley Works, New Britain, Conn.
 Curtin, W. H., President, W. H. Curtin and Co., 419 Washington Ave., Houston, Tex.
 Devlin, F. M., President, Philadelphia Hardware and Malleable Iron Works, Inc., State Road and Shelmire Sts., Philadelphia, Pa.
 Dick, R. E., Chemist, Individual Drinking Cup Co., Easton, Pa.
 Dingle, J. H., City Engr., 182 Tradd St., Charleston, S. C.
 Edwards, E. T., Mfr. of Reinforcing Bars, 666 Locust St., Columbia, Pa.
 Fisher, E. J. P., Physical Metallurgist, Keystone Steel and Wire Co., 621 W. Ayres Ave., Peoria, Ill.
 Folk, S. B., Assistant Professor of Mechanics, Ohio State Univ., Columbus, Ohio.

Fort Wayne, City of, Eng. Dept., V. A. Barnett, City Engr., City Hall, Fort Wayne, Ind.
 Frankland, F. H., Director, Eng. Service, Am. Inst. of Steel Constr., 200 Madison Ave., New York City.
 Gagnon, J. G., Chief Metallurgist, Hudson Motor Car Co., Detroit, Mich.
 Gephart, P. D., Head, Asphalt Dept., H. H. Robertson Co., 2000 Grant Bldg., Pittsburgh, Pa.
 Hall, Ralph E., Director, Hall Labs., Inc., 304 Ross St., Pittsburgh, Pa.
 Hittinger, N. J., Engr., Bethlehem Steel Co., Bethlehem, Pa.
 Hopkins, G. Elberon, Tech. Director, Bigelow-Sanford Carpet Co., Thompsonville, Conn.
 Hopkins, J. T., Town Engr., 121 Prospect St., Westfield, N. J.
 Houghton, H. S., Vice-President, Jackson Eng. Corp., 11 E. 5th Ave., Tulsa, Okla.
 Instituto de Ensayo de Materiales, V. I. García, Civil Engr., Calle Cerrito n° 73, Montevideo, Uruguay.
 Ivy, P. A., Vice-President, Nat. Cast Iron Pipe Co., Box 2542, Birmingham, Ala.
 Joseph, C. F., Metallurgist, Saginaw Malleable Iron Division, General Motors Corp., Saginaw, Mich.
 Kaiser, J. A., Purchasing Agent, Washington Ry. and Elec. Co., Washington, D. C. For mail: 27 Detrick Ave., Kensington, Md.
 Karlsson, Hilmer, Assistant Chief Engr., The Air Preheater Corp., 121 S. Main St., Wellsville, N. Y.
 Keeler, H. F., Purchasing Agent, James Lees and Sons Co., Bridgeport, Pa.
 Koopman, T. O., General Superintendent, Nat. Lead Co., Matawan, N. J. For mail: 211 Broadway, Keyport, N. J.
 Körber, Friedrich, Director, Kaiser Wilhelm Institut für Eisenforschung, Heinrich Ehrhardtstrasse, Düsseldorf 120, Germany.
 Lame, E. J., Sales Manager, R. D. Wood and Co., 400 Chestnut St., Philadelphia, Pa.
 Larmour, H. McC., Chief Chemist, Yosemite Portland Cement Corp., Drawer W, Merced, Calif.
 Layng, F. R., Chief Engr., Bessemer & Lake Erie R. R. Co., Greenville, Pa.
 Lee, J. A., Assistant Editor, McGraw-Hill Publishing Co., 475 10th Ave., New York City.
 Liebau, C. L., Vice-President and General Manager, Decatur Malleable Iron Co., Decatur, Ill.
 Likins, R. D., Engr. of Materials and Tests, Arkansas State Highway Commission, Little Rock, Ark. For mail: 3805 W. 5th St., Little Rock, Ark.
 Lockhardt, W. F., Secretary-Director, Nat. Terra Cotta Society, 230 Park Ave., New York City.
 Macaulay, J. R., Vice-President, J. T. Donald and Co., Ltd., 1181 Guy St., Montreal, P. Q., Canada.
 Maibauer, A. E., Testing Engr., Bakelite Corp., 230 Grove St., Bloomfield, N. J.
 Marley, S. P., Research Engr. in Petroleum, Mellon Inst. of Industrial Research, Thackeray and O'Hara Sts., Pittsburgh, Pa.
 McGolpin, W. C., General Manager, Nat. Fire Proofing Co. of Canada, Ltd., 211 Dominion Bank Bldg., King and Yonge Sts., Toronto, Ont., Canada.
 McKearin, J. P., Elec. Engr., Western Massachusetts Cos., 73 State St., Springfield, Mass.
 Mitchell, H. A., Standards Engr., General Motors Truck Corp., Eng. Division, South Boulevard Plant, Pontiac, Mich.
 Mitchell, W. E., Superintendent of Zinc Plant, Anaconda Copper Mining Co., Great Falls, Mont.
 Morrison, F. J., Chief Chemist, Hummel-Ross Fibre Corp., 1107-A Pecan Ave., Hopewell, Va.
 Moyer, R. A., Assistant Professor of Highway Eng., Civil Eng. Dept., Iowa State College, Ames, Iowa.
 Mullen, G. W., Assistant Manager, Two-in-One Shinola Bixby Corp., 1437 W. Morris St., Indianapolis, Ind.
 Muller, Ernest, Apex Smelting Co., 2554 Fillmore St., Chicago, Ill.
 Mumma, P. F., Research Engr., Nat. Tube Co., Nat. Tube Research Lab., 4910 Forest St., Pittsburgh, Pa.
 Murphy, P. S., Assistant Mech. Engr., U. S. Bureau of Standards, Washington, D. C. For mail: 4501 Stanford St., Chevy Chase, Md.
 Murray, J. S., Elec. Engr., Follansbee Brothers Co., Follansbee, W. Va.
 Mursch, John, Manager, Rapid Printing Plate and By-Products Corp., North Bergen, N. J. For mail: Teaneck, N. J.
 New York City, President of the Borough of Queens, Dept. of Eng., Borough Hall, Long Island City, N. Y.
 Oetzel, J. G., Chief Engr., Atlas Imperial Diesel Engine Co., Oakland, Calif.
 Outcault, H. E., In Charge of Tech. Service, St. Joseph Lead Co., 250 Park Ave., New York City.
 Patterson, W. E., Chief Chemist, G. F. Sterne and Sons, Ltd., Brantford, Ont., Canada.
 Peelle, J. F., President, The Richmond Fireproof Door Co., Richmond, Ind.

Pierce, Dana, President, Underwriters' Labs., 207 E. Ohio St., Chicago, Ill.
 Powell, S. T., Consulting Chem. Engr., 213 St. Paul Place, Baltimore, Md.
 Pozzo, Giuseppe, Director, "Ansaldo," Societa Anonima Acciaierie e Fonderie di Acciaio, Ufficio Postale Ansaldo, Genova-Cornigliano, Italy.
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 Riley, H. R., Chief Mech. Engr., United Railways of Havana, Box 450, Havana, Cuba.
 Robinson, W. E., Vice-President, The Robinson Clay Product Co., 1100 Second National Bldg., Akron, Ohio.
 Roby, L. E., President, Peoria Malleable Castings Co., Peoria, Ill.
 Rupert, F. E., Chemist, Anaconda Wire and Cable Co., Pawtucket, R. I. For mail: 179 Albert Ave., Edgewood, R. I.
 Sheehan, J. T., Inspector, Bldg. Dept., Borough Hall, Brooklyn, N. Y. For mail: 432 50th St., Brooklyn, N. Y.
 Shewhart, W. A., Research Engr., Bell Telephone Labs., Inc., 463 West St., New York City.
 Sillers, Frederick, Jr., Metallurgist, Battelle Memorial Inst., 505 King Ave., Columbus, Ohio.
 Stal, W. D., Mech. Engr. in Charge of Concrete Testing Lab., Beauharnois Constr. Co., Beauharnois, P. Q., Canada.
 Stewart, J. K., Director of Research, Anderson-Prichard Oil Corp., Oklahoma City, Okla. For mail: 3316 N. Kedzie Ave., Chicago, Ill.
 Stubenvoll, K. H., Chief Chemist, Gillette Rubber Co., Eau Claire, Wis.
 Taylor, Fitzhugh, Protection Engr., Underwriters' Labs., 207 E. Ohio St., Chicago, Ill.
 Teetor, R. J., General Manager, Cadillac Malleable Iron Co., Cadillac, Mich.
 Tift, T. D., Assistant Chief Engr., Sinclair Refining Co., 45 Nassau St., New York City.
 Tomkins, Frederick, President, Newark Plaster Co., 65 Bridge St., Newark, N. J.
 Umbreit, Stanton, Metallurgist, RCA Radiotron Co., Harrison, N. J.
 Valle, J. A., Chief, Highway Research Dept., Direccion Nacional de Caminos, Calle Galileo 2416, Buenos Aires, Argentina.
 Van Zandt, P. C., Assistant to President, Universal Atlas Cement Co., 208 S. La Salle St., Chicago, Ill.
 Veatch, N. T., Jr., Consulting Engr., Black & Veatch, 701 Mutual Bldg., Kansas City, Mo.
 Veraflor, J. P., Senior Student, Civil Eng. and Eng. Mechanics Course, Ann Arbor, Mich. For mail: 517 E. Washington St., Ann Arbor, Mich.
 Wait, B. H., Consulting Engr., Bertrand H. Wait, Inc., 51 E. 42d St., New York City.
 Wallis, W. B., President, Pittsburgh Elec. Furnace Corp., Box 1125, Pittsburgh, Pa.
 Watkins, S. P., Rustless Iron Corp. of America, Baltimore, Md.
 Wirtz, M. F., President, The Atlas Mineral Products Co. of Pa., Mertztown, Pa.

Junior Members (6)

Brown, J. W., Jr., Assistant to President, Cleveland Elec. Metals Co., Cleveland, Ohio. For mail: 3707 Normandy Road, Shaker Heights, Cleveland, Ohio.
 Hardy, C. D., Metallurgist, New England High Carbon Wire Co., Millbury, Mass. For mail: 1158 Pleasant St., Worcester, Mass.
 Jannetto, N. A., Chief Chemist, Aluminum Smelting and Refining Co., Cleveland, Ohio. For mail: 1424 E. 173d St., Cleveland, Ohio.
 Lang, H. J., Tech. Assistant to Works Manager, Cable Mfg. Co., Ltd., Bratislava, Czechoslovakia.
 Meyercord, G. R., Jr., Graduate Student, Technische Hochschule, Berlin, Germany. For mail: 577 Hawthorne Place, Chicago, Ill.
 Toner, A. C., Jr., Inspector, Liberty Corp., Orthodox St. and Delaware River, Philadelphia, Pa.

Discussion of Annual Meeting Papers and Reports

Written discussion of the papers and reports presented at the recent annual meeting will be received by the Committee on Papers and Publications until September 1. Members are urged to have their discussion in as far in advance of the limiting date as possible, in order to facilitate preparation of material for the Proceedings.

Necrology

We announce with regret the death of thirteen members and representatives:

H. A. BURR, Assistant Bridge Engineer, Tennessee Department of Highways and Public Works, Nashville, Tenn. Member since 1928.

H. M. CLEMENS, President and General Manager, Cannellton Sewer Pipe Co., Cannellton, Ind. Member since 1921.

R. W. DOWNIE, Testing Engineer, Department of Railways and Canals, Welland Ship Canal, Thorold, Ont., Canada. Member since 1921.

J. G. JOSEPH, President, Buffalo Steel Co., Tonawanda, N. Y. Member since 1912.

P. S. KIER, Vice-President and Treasurer, The Kier Fire Brick Co., Pittsburgh, Pa. Member since 1916.

W. J. NICHOLSON, General Manager, National Fireproofing Co. of Canada, Ltd., Toronto, Ont., Canada. Member since 1924.

S. W. PARR, Professor Emeritus of Industrial Chemistry, University of Illinois, Urbana, Ill. Member since 1908. Professor Parr was graduated from the University of Illinois in 1884 and later studied at Cornell and in Europe. For thirty-five years he was Professor of Applied Chemistry at the University of Illinois. He contributed greatly to the knowledge of the analysis and composition of fuels and the chemistry of combustion and was the inventor of various calorimeters and bombs used in these fields. He was chairman of A.S.T.M. Committee D-3 on Methods of Sampling and Analysis of Coal from its beginning in 1914 through 1919 and a member until this committee was discontinued in 1921. He was a member of Committee D-5 on Coal and Coke at the time of his death and also a member of the Joint Research Committee on Boiler Feed Water Studies. Professor Parr held many society memberships and was a past-president of the American Chemical Society.

W. R. SHAW, JR., Special Representative, Pennsylvania Grade Crude Oil Assn., a new member of the Society, having joined on February 9, met a tragic death on March 6 in St. Louis, having been attacked and shot by a highwayman.

O. C. SKINNER, Works Manager, Standard Steel Works Co., Burnham, Pa. Member since 1904.

G. F. SWAIN, Professor Emeritus of Civil Engineering, Harvard University. Member since 1898. Professor Swain was graduated from Massachusetts Institute of Technology in 1877, and after studying in Germany for three years returned to Massachusetts Institute and was a member of the faculty until 1909. He was Professor of Civil Engineering at Harvard from this time until he retired in 1929. He was consultant on many important engineering projects. As chairman of A.S.T.M. Committee C-1 on Cement from its inception in 1902 until 1915, he was prominent in determining the early course of the work of that committee. Professor Swain was a past-president of the American Society of Civil Engineers and of the Society for the Promotion of Engineering Education; he held many other society memberships.

L. J. WEINSTEIN, Professor of Applied Physics and Metallurgy, New York University, College of Dentistry, New York City. Member since 1926.

H. W. YOUNG, Research Engineer, Field Division, The Midwest Refining Co., Midwest Gas Plant, Midwest, Wyoming. Member since 1924.

S. M. YOUNG, Chief Engineer, Port of New Orleans, Board of Commissioners, New Orleans, La.

Officers of Southern California District Committee

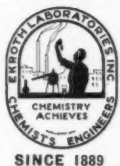
New officers of the Southern California District Committee of the Society are announced as follows:

Chairman: P. E. Jeffers, Structural Engineer, 816 West Fifth St., Los Angeles.

Secretary: N. W. Kelch, Secretary-Manager, Clay Products Institute, 611 Architects' Building, Los Angeles.

They succeed F. W. Hinrichs, chairman, and S. C. Simons, secretary, respectively.

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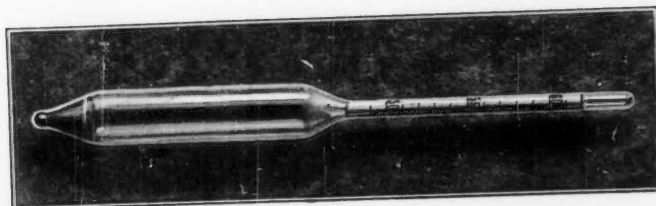
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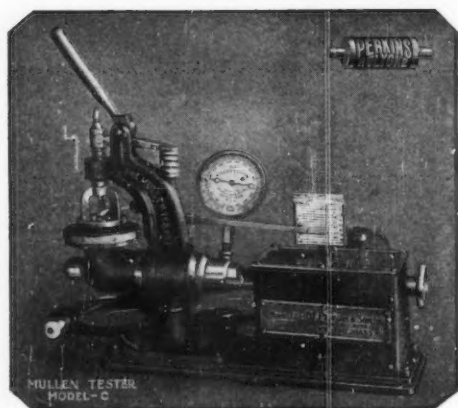
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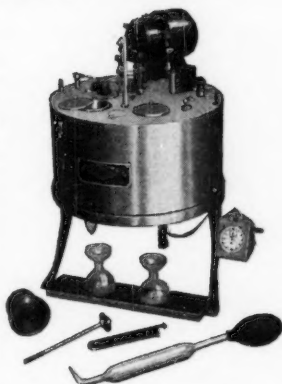
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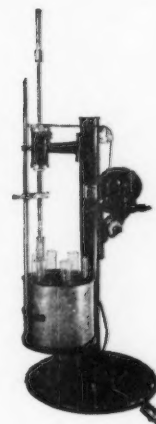
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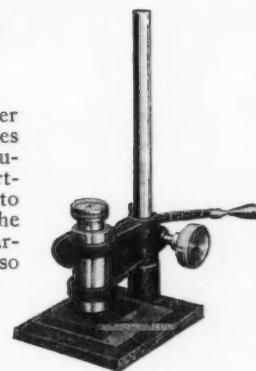


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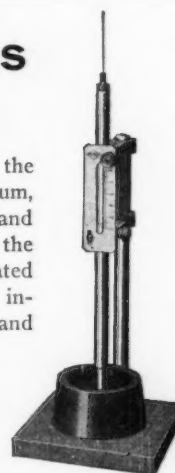


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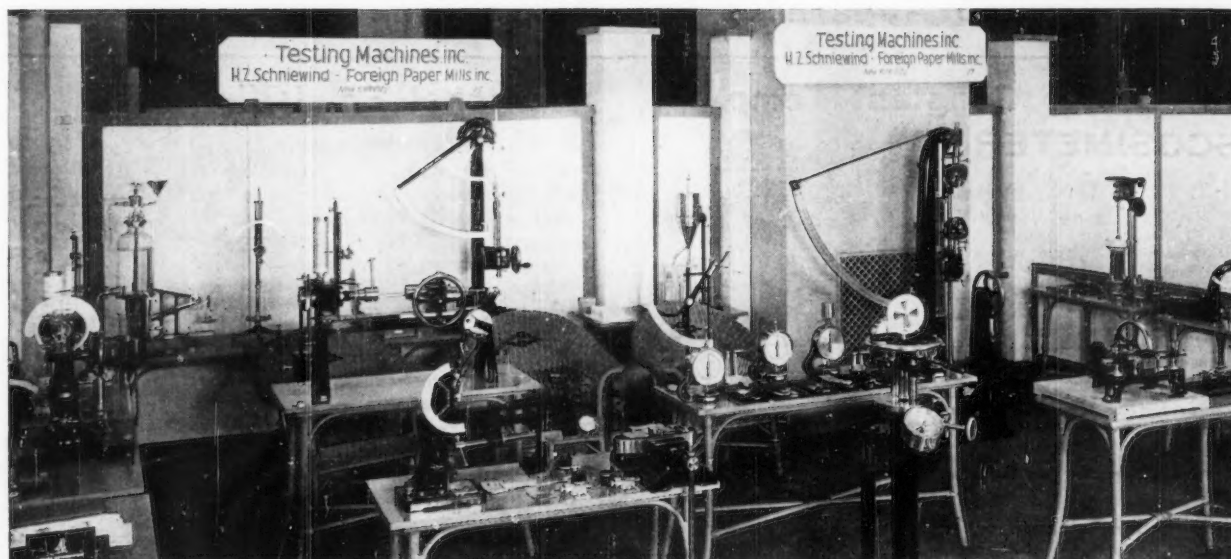


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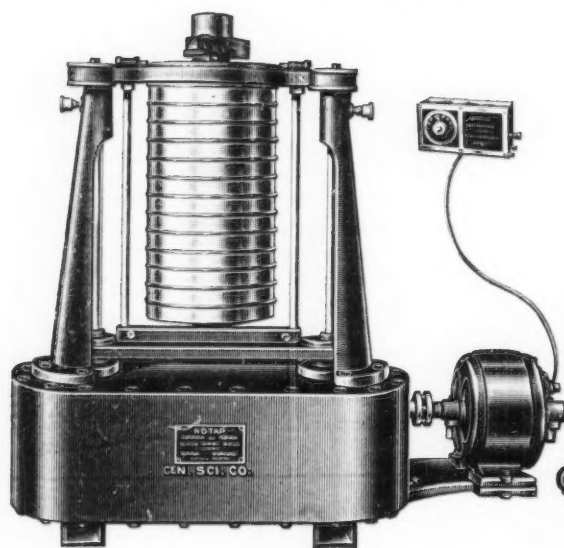


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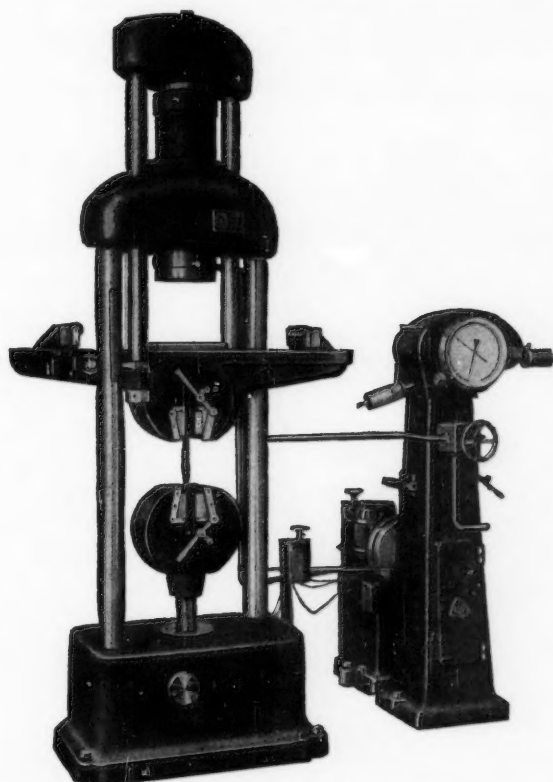
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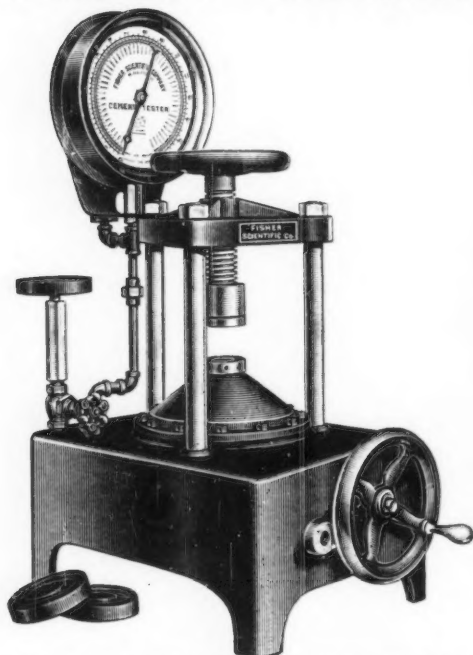
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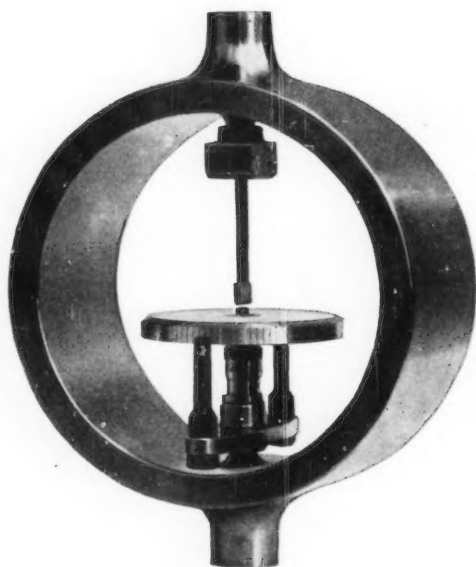
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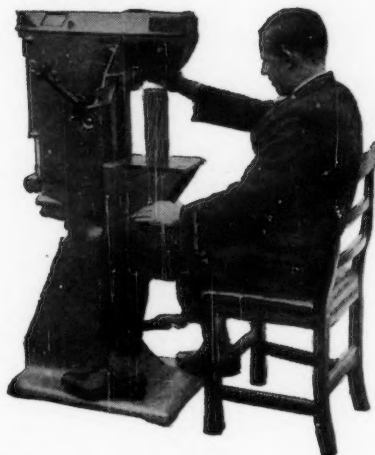
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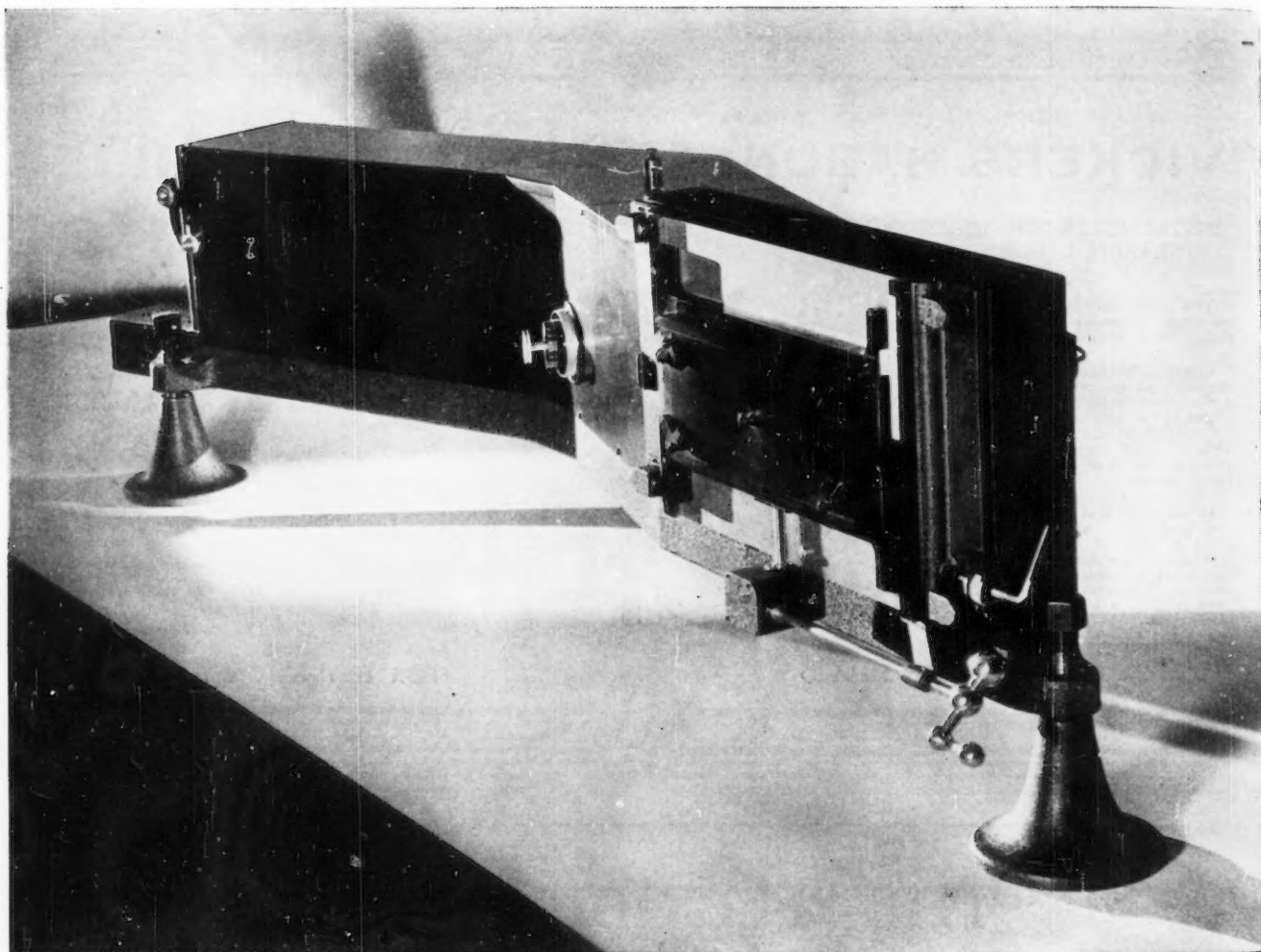
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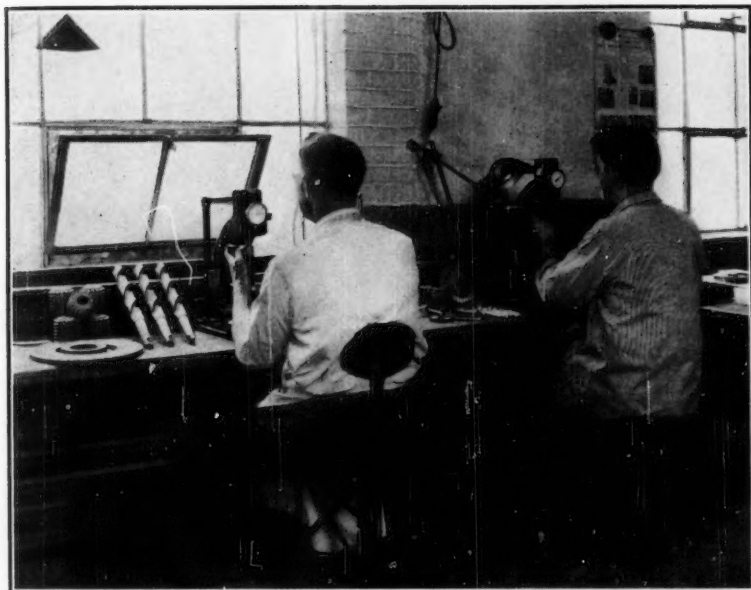
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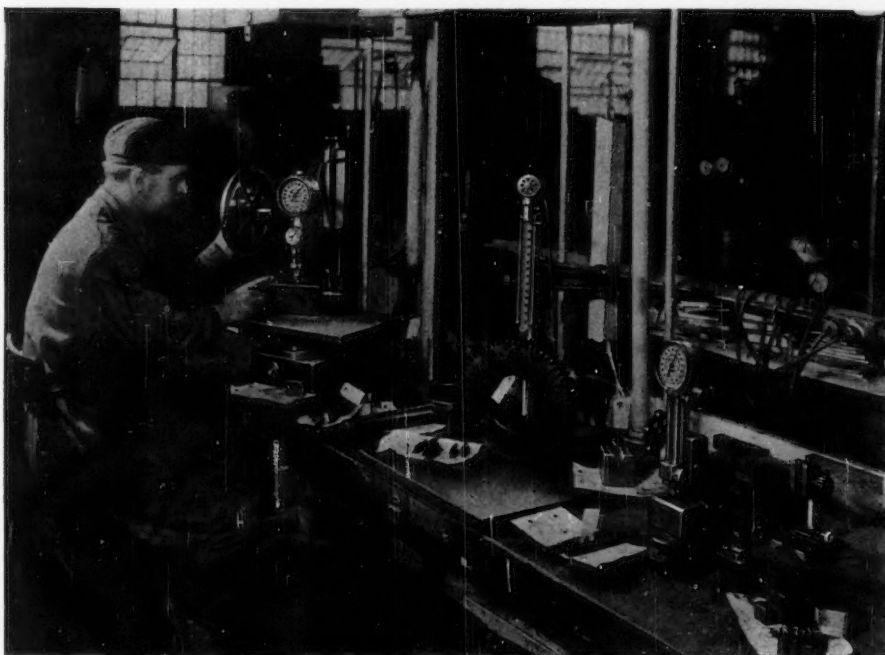
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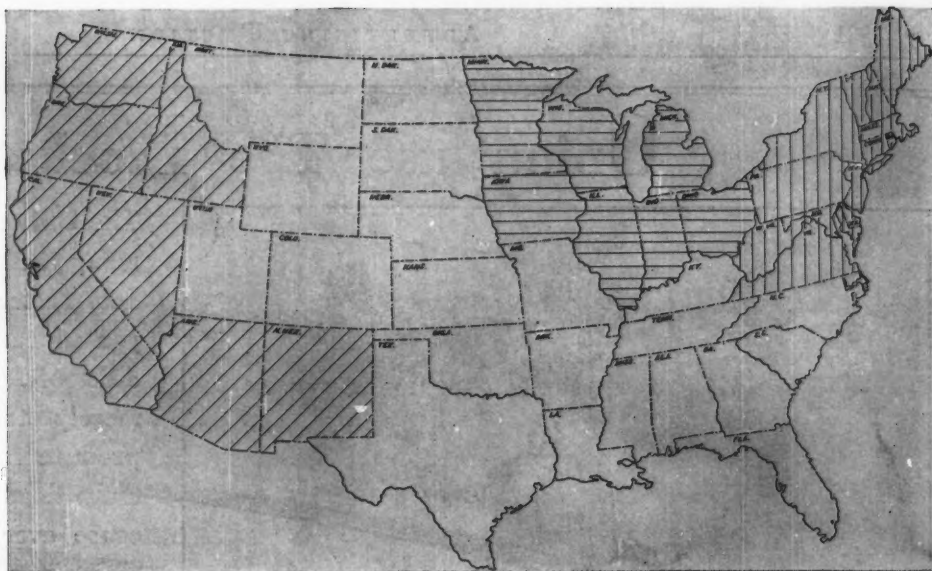
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